

**Lane Construction Corporation
Waldo County
Searsport, Maine
A-524-71-G-R/A**

**Departmental
Findings of Fact and Order
Air Emission License**

After review of the air emission license renewal/amendment application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

Lane Construction Corporation (Lane), located in Searsport, Maine has applied to renew their Air Emission License, permitting the operation of their concrete batch plant.

B. Emission Equipment

Concrete Plant

<u>Equipment</u>	<u>Production Rate (cubic yards/hour)</u>	<u>Control Devices</u>	<u>Stack ID</u>
Concrete Batch Plant	200	Baghouse	17A

Diesel Units

<u>Source ID</u>	<u>Max. Capacity</u>	<u>Max. Firing Rate</u>	<u>Power Output</u>
Genset 608	1.7 MMBtu/hr	12.1 gal/hr #2	242 hp
Genset 855	2.33 MMBtu/hr	17.0 gal/hr #2	332 hp

***Bold** denotes new equipment to this license.

Fuel Burning Equipment

Equipment	Maximum Capacity	Fuel Type, %Sulfur	Maximum Firing Rate
Boiler 17	4.2 MMBtu/hr	#2, 0.35%	30.0 gal/hr

C. Application Classification

The application for Lane includes the addition of new equipment and an increase in emissions, therefore the license is considered to be an amendment and renewal of current licensed emissions units.

II. BEST PRACTICAL TREATMENT

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent best practical treatment (BPT), as defined in Chapter 100 of the Bureau of Air Quality regulations.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in Chapter 100 of the Department's regulations. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

A. Concrete Batch Plant

To meet the requirements of BPT for control of PM emissions from the cement silo, particulate emissions shall be vented through a baghouse maintained for 99% removal efficiency. Visible emissions from the cement silo baghouse is limited to no greater than 10% opacity on a six (6) minute block average basis except for no more than one (1) six (6) minute block average in a 1-hour period. The facility shall take corrective action if visible emissions from the baghouses exceed 5% opacity.

All components of the concrete batch plant shall be maintained so as to prevent PM leaks. Visible emissions from concrete batching operations shall not exceed 20% opacity on a six (6) minute block average basis except for no more than one (1) six (6) minute block average in a 1-hour period.

B. Diesel Units

Genset 608 has an approximate power rating of 242 HP, based on a heat input of 1.7 MMBtu/hr and Genset 855 has an approximate power rating of 332 HP based on a heat input of 2.33 MMBtu/hr; each based on 35% efficiency. BACT for the new diesel units is the following:

1. Total annual diesel fuel use in the diesels is limited to 50,000 gallons.

2. Chapter 106 regulates fuel sulfur content, however the use of 0.35% sulfur by weight fuel is more stringent and shall be used.
3. SO₂ emission data was based on fuel sulfur mass balance.
4. NO_x, CO and VOC emission limits are based upon AP-42 data dated 10/96 for diesel engines less than 600 horsepower.
5. PM and PM₁₀ emission rates were based upon BACT of 0.12 #/MMBtu.
6. Opacity from each diesel unit shall not exceed 20% on a six (6) minute block average basis, except for two (2) six (6) minute block averages in a 3-hour period.

C. Boiler 17

Boiler 17 has a heat input capacity of 4.2 MMBtu/hr. This boiler has a heat input less than 10 MMBtu/hr and is therefore not subject to NSPS Subpart Dc.

A summary of BPT is detailed below:

1. MEDEP Chapter 106 regulates fuel sulfur content, however the use of 0.35% sulfur by weight fuel is BPT in this instance due to the shared fuel tank with the asphalt plant.
2. SO₂ emission data was based on fuel sulfur mass balance.
3. PM and PM₁₀ emission rates were based upon MEDEP Chapter 103.
4. NO_x emission rates were based upon BPT of 0.30 #/MMBtu.
5. CO and VOC emission rates were based upon AP-42 data dated 10/98 for boilers with a heat input less than 100 MMBtu/hr.
6. Opacity from Boiler 17 shall not exceed 20% opacity on a six (6) minute block average basis, except for one (1) six (6) minute block average in a 3-hour period.

D. Stock Piles and Roadways

Visible emissions from a fugitive emission source shall not exceed an opacity of 20 percent, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20 percent in any one (1) hour.

E. General Process Emissions

Visible emissions from a general process (including conveyor belts) shall not exceed an opacity of 10% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period.

F. Facility Emissions

- 100,000 gallons per year #2 fuel oil, 0.35% sulfur by weight maximum, in Boiler 17.
- 50,000 gallons per year diesel fuel, 0.35% sulfur by weight maximum, in the diesel units.

(all based on a 12 month rolling total)

Total Annual Emissions for the Facility
(used to calculate the annual license fee)

Pollutant	Boiler	Gensets	Total Tons/year
PM	0.8	0.4	1.2
PM ₁₀	0.8	0.4	1.2
SO ₂	2.5	1.2	3.7
NO _x	2.1	15.2	17.3
CO	0.3	3.3	3.6
VOC	0.1	1.2	1.3

III. **AMBIENT AIR QUALITY ANALYSIS**

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a renewal source shall be determined on a case-by-case basis. Based on the above total facility emissions, Lane is below the emissions level required for modeling and monitoring.

ORDER

Based on the above Findings and subject to conditions listed below the Department concludes that the emissions from this source:

will receive Best Practical Treatment,
will not violate applicable emission standards,
will not violate applicable ambient air quality standards in
conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-524-71-G-R/A subject to the following conditions:

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples,

conducting inspections, or examining and copying records relating to emissions. [MEDEP Chapter 115]

- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [MEDEP Chapter 115]
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [MEDEP Chapter 115]
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [MEDEP Chapter 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. § 353. [MEDEP Chapter 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [MEDEP Chapter 115]
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [MEDEP Chapter 115]
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [MEDEP Chapter 115]
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [MEDEP Chapter 115]

- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [MEDEP Chapter 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
- A. perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 - 1. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 - 2. pursuant to any other requirement of this license to perform stack testing.
 - B. install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - C. submit a written report to the Department within thirty (30) days from date of test completion.
- [MEDEP Chapter 115]
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then [MEDEP Chapter 115]:
- A. within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
 - B. the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
 - C. the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [MEDEP Chapter 115]
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [MEDEP Chapter 115]
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [MEDEP Chapter 115]
- (16) **Concrete Batch Plant**
- A. Particulate emissions from the cement silo shall be vented through a baghouse and all components of the batch plant shall be maintained so as to prevent PM leaks. [MEDEP Chapter 115, BPT]
 - B. To document maintenance of the cement silo baghouse, the licensee shall keep a maintenance log recording the date and location of all bag failures as well as all routine maintenance. The maintenance log shall be kept on-site at the concrete batch plant location. [MEDEP Chapter 115, BPT]
 - C. Opacity from the cement silo baghouse is limited to no greater than 10% on a 6 minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period. Lane shall take corrective action if visible emissions from the baghouse exceed 5% opacity. [MEDEP Chapter 101]
 - D. PM emissions from the concrete batching operation shall be controlled so as to prevent visible emissions in excess of 20% opacity on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period. [MEDEP Chapter 101]

(17) **Diesel Units**

- A. Combined fuel use in Genset 608 and Genset 855 shall not exceed 50,000 gal/year of diesel fuel (12 month rolling total), with a sulfur content not to exceed 0.35% by weight. Fuel use records and receipts (showing the quantity and percent sulfur of the fuel) for the diesel engines shall be maintained to demonstrate compliance.

[MEDEP Chapter 115, BPT]

- B. Emissions from Genset 608 shall be limited to the following [MEDEP Chapter 115, BPT]:

<u>Pollutant</u>	<u>lb/hr</u>
PM	0.20
PM ₁₀	0.20
SO ₂	0.61
NO _x	7.50
CO	1.62
VOC	0.60

- C. Emissions from Genset 855 shall be limited to the following [MEDEP Chapter 115, BPT]:

<u>Pollutant</u>	<u>lb/hr</u>
PM	0.28
PM ₁₀	0.28
SO ₂	0.83
NO _x	10.28
CO	2.21
VOC	0.82

- D. Visible emissions from each diesel unit (Genset 608 and Genset 855) shall not exceed 20% on a six (6) minute block average basis, except for two (2) six (6) minute block averages in a 3-hour period.

[MEDEP Chapter 101]

(18) **Boiler 17**

- A. The sulfur content of the fuel oil fired in Boiler 17 shall not exceed 0.35% by weight. Compliance shall be demonstrated using fuel use records maintained on a 12-month rolling total and the records shall include fuel percent sulfur as documented by receipts. The annual fuel use limit for Boiler 17 shall be 100,000 gal/year. [MEDEP Chapter 115, BPT]

- B. Emissions from Boiler 17 shall be limited to the following [MEDEP Chapter 103 and Chapter 115, BPT]:

<u>Pollutant</u>	<u>#/MMBtu</u>	<u>lb/hr</u>
PM	0.12	0.50
PM ₁₀	n/a	0.50
SO ₂	n/a	1.48
NO _x	n/a	1.26
CO	n/a	0.15
VOC	n/a	0.01

- C. Visible emissions from the Boiler 17 shall not exceed 20 percent on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 3-hour period. [MEDEP Chapter 101]

(19) **Stockpiles and Roadways**

Visible emissions from a fugitive emission source shall not exceed an opacity of 20 percent, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20 percent in any one (1) hour. [MEDEP Chapter 101]

(20) **General Process Sources**

Visible emissions from any general process source shall (including conveyor belts) not exceed an opacity of 10% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period. [MEDEP Chapter 101 and Chapter 115, BPT]

(21) **Equipment Relocation** [MEDEP Chapter 115, BPT]

- A. Lane shall notify the Bureau of Air Quality, by a written notification at least 10 days in advance, prior to relocation of any equipment carried on this license. The notification shall be sent to:

Attn: Relocation Notice
Maine DEP
Bureau of Air Quality
17 State House Station
Augusta, ME 04333-0017

The notification shall include the address of the equipment's new location and the license number pertaining to the relocated equipment.

- B. Written notification shall also be made to the municipality where the equipment will be relocated, except in the case of an unorganized territory where notification will be made to the respective county commissioners.
- (22) Lane shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (Title 38 MRSA §605-C).
- (23) Lane shall keep a copy of this Order on site, and have the operator(s) be familiar with the terms of this Order. [MEDEP Chapter 115, BPT]
- (24) **Payment of Fees**
Lane shall pay the annual air emission license fee within 30 days of **January 30th** of each year. Pursuant to 38 MRSA §353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under 38 MRSA §341-D, subsection 3. [38 MRSA §353-A]

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2004.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
DAWN R. GALLAGHER, COMMISSIONER

The term of this license shall be five (5) years from the signature date above.

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: December 18, 2003

Date of application acceptance: January 5, 2004

Date filed with the Board of Environmental Protection _____

This order prepared by Mark E. Roberts, Bureau of Air Quality